



9200/2654
#18

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

ROGER S. ZIMMERMAN ET AL

PHA 23,960

Serial No. 09/311,333

Group Art Unit: 2654

Filed: MAY 13, 1999

Examiner: DAVID D. KNEPPER

Title: IN-THE-FIELD ADAPTATION OF A LARGE VOCABULARY AUTOMATIC
SPEECH RECOGNIZER (ASR)

Commissioner for Patents
Washington, D.C. 20231

PETITION TO WITHDRAW HOLDING OF ABANDONMENT BASED ON
FAILURE TO TIMELY FILE A PROPER REPLY

Sir:

This Petition is submitted in response to a Notice of Abandonment that was mailed on March 24, 2003 (attached as Exhibit A). In the Notice, U.S. Patent Application No. 09/311,333 was stated to be abandoned for failure to timely file a proper reply to the Office letter mailed on May 21, 2002 (the Office letter dated May 21, 2002 is in effect the Final Office Action - attached as Exhibit B) and acknowledged that the Notice of Appeal was received on August 27, 2002 in response to the Advisory action dated August 13, 2002. However, it states that no Appeal Brief was filed in accordance with 37 CFR 1.192 nor was any other response received to prevent abandonment.

Specifically, on October 15, 2002, and in conjunction with the Notice of Appeal, which was submitted on August 21, 2002 and well within the two months response time, Applicants submitted to the Patent and Trademark Office a Continued Prosecution Application (CPA) (attached as Exhibit C) which indicated that the Preliminary Amendment to this application had been filed on October 8, 2002 (attached as Exhibit D).

The Certificate of Express Mailing on the CPA certifies that it was properly mailed on October 15, 2002. The mailing date of October 15, 2002 is well within the 2 months from the date Notice of Appeal was mailed to file a response and well within six months from the date of the Final Office Action before abandonment of the application. Thus, the proper response was timely mailed as permitted by 37 C.F.R. 1.8(a).

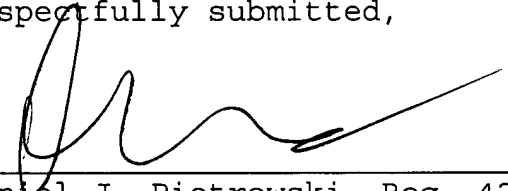
The acknowledgment of receipt postcard (attached as Exhibit E) bears a Patent and Trademark Office mailroom stamp imprinted on it indicating that the CPA and relating documents were received by the Patent and Trademark Office mailroom on October 15, 2002.

It is respectfully requested that the Continuing Prosecution Application (CPA) that was mailed on October 15, 2002 be considered timely received and that the status of the above-identified application be changed from Abandoned to pending.

The Applicants have made a diligent and sincere effort to clearly set out the facts and circumstances surrounding this matter and firmly believe that a sufficient showing is made thereby for an immediate allowance of this Petition and notice to this effect is earnestly solicited.

In the event that there are any difficulties regarding this matter, it is requested that the undersigned be contacted at the telephone number indicated below.

Respectfully submitted,



By _____
Daniel J. Piotrowski, Reg. 42,079
Senior Patent Counsel
(914) 333-9624

Enclosures:

- Exh. A: Copy of Notice of Abandonment dated March 24, 2003
- Exh. B: Copy of Final Office Action dated May 21, 2002
- Exh. C: Copy of CPA dated October 15, 2002
- Exh. D: Copy of Preliminary Amendment dated October 8, 2002
- Exh. E: Copy of Return Receipt Post Card

CERTIFICATE OF MAILING

It is hereby certified that this correspondence is being deposited
with the United States Postal Service as first-class mail in an envelope addressed to:
COMMISSIONER FOR PATENTS

Washington, D.C. 20231

On April 8, 2003

By Noemi Chaga

EXHIBIT A



UNITED STATES PATENT AND TRADEMARK OFFICE

APR 14 2003

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/311,333	03/13/1999	ROGER SCOTT ZIMMERMAN	5494:57	1111

7590

03/24/2003

JACK E. HAKEN
C/O USPHILIPS CORP., INTELLECTUAL PROPERTY DEPT.
580 WHITE PLAINS ROAD
TARRYTOWN, NY 10591

EXAMINER

KNEPPER, DAVID D

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED	DATE	INITIAL
COMPUTER	PC MAR 27 2003	
SECRETARY		
ATTORNEY		

03 MAR 27 AM 9:19

Notice of Abandonment

APR 14 2003

Application No.

09/311,333

Examiner

David D. Knepper

Applicant(s)

ZIMMERMAN ET AL.

Art Unit

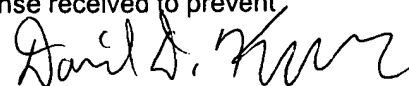
2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 21 May 2002.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
 - (c) ☒ A reply was received on 27 August 2002 but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☐ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$_____ is insufficient. A balance of \$_____ is due.
The issue fee required by 37 CFR 1.18 is \$_____. The publication fee, if required by 37 CFR 1.18(d), is \$_____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☒ The reason(s) below:

A Notice of Appeal was received 27 Aug 2002 in response to the Advisory Action of 13 Aug 2002 ~~was~~. However, no Appeal Brief was filed in accordance with 37 CFR 1.192 nor was any other response received to prevent abandonment.



David D. Knepper
Primary Examiner
Art Unit: 2654

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

EXHIBIT B



UNITED STATES PATENT AND TRADEMARK OFFICE

PSK1

APPLICATION NO. 09/311,333	FILING DATE 05/21/2002	FIRST NAMED INVENTOR ROGER SCOTT ZIMMERMAN	ATTORNEY DOCKET NO. 5494:57	CONFIRMATION NO. 1111
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JACK E. HAKEN
C/O USPHILIPS CORP., INTELLECTUAL PROPERTY DEPT.
580 WHITE PLAINS ROAD
TARRYTOWN, NY 10591

A23960

EXAMINER KNEPPER, DAVID D

ART UNIT 2654	PAPER NUMBER
------------------	--------------

DATE MAILED: 05/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED	DATE	INITIAL
COMPUTER	PC MAY 28 2002	
SECRETARY	6/5	NE
ATTORNEY		

2002 MAY 28 P 12:10

108V

Office Action Summary



Application No.

09/311,333

Applicant(s)

ZIMMERMAN ET AL.

Examiner

David D. Knepper

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8 March 2002 (paper #6).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

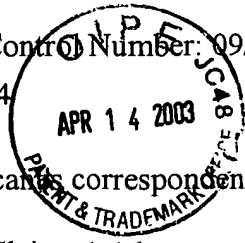
- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 08 March 2002 is: a) ☐ approved b) ☒ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____



1. Applicant's correspondence filed on 8 March 2002 (paper #6) has been received and considered. Claims 1-16 are pending.

Abstract

2. The Abstract of the Disclosure is objected to because the first sentence is redundant over the rest of the abstract and should be deleted. The use of the term "method" should also be deleted since this can be interpreted as a legalistic term more appropriate to the claims. Correction is required. See M.P.E.P. § 608.01(b).

3. The amendment filed 8 March 2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows.

The second description of figure 2³ added to page 7, line 13 contradicts the first description and must be removed.

Applicant is required to cancel the new matter in the reply to this Office Action.

4. The amendment of paper #6 improperly identifies drawings to be entered into the specification. 37 CFR 1.121 has no provision for this method of making an amendment. The applicant is required to add all of the tables improperly labeled as drawings into the specification in accordance with 37 CFR 121.

NOTE: it is assumed that table 1A and 1B were improperly labeled as drawings 3A and 3B. The previous office action (paper #5) only referred to them as figures 3A and 3B. These tables should be separately added and numbered as six tables with appropriate text describing the labels/abbreviations.

The substitute paragraphs were entered.

Drawings

5. The drawings are objected to because figures 3A, 3B, 4A and 4B are tables of data and descriptive matter which should be part of the specification.

The addition of descriptive matter to figure 1 is objected to. Listing example features in text does serve the same purpose as showing a figure of the features.

Correction is required.

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "adaptation algorithm", "digitally-encoded/speech waveform data", "acoustical model", "Hidden Markov Model", "Word Bigram/Statistics", "pronunciation model", "phonetic transcription lexicon", "memory medium", "code to enable live input data reception", "applying code to apply a given adaption algorithm to the received live input data" and "updating code" must be shown or the feature(s) canceled from the claim(s).

Listing the features (as words) noted above in text does not serve the same purpose as showing a drawing of the features. The applicant is may find it necessary to review 37 CFR 1.84

for alternatives that are acceptable as drawings.

No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for claims 1-15, does not reasonably provide enablement for automatically updating some sort of "code". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with this claim.

The language of claim 16 refers to memory "including code" and indicates that the code itself is applied and updated. The specification fails to teach how to make and use any type of code that can adapt itself. The claim indicates that "applying code to apply a given adaptation algorithm" which is interpreted as meaning that the code is actually the algorithm is some unique code. The specification any such unique code.

In other words, the specification fails to support code which can not only update

particular recognition data but can modify itself. This, if enabled, would allow an algorithm to modify itself and would actually change the algorithm to employ a different (modified) algorithm every time it is operated.

To further prosecution, the claim is interpreted as a computer program that implements the method using a conventional computer programming language and "updating code" is interpreted as just updating data in the speech recognizer.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-16 are rejected under 35 U.S.C. § 103 as being unpatentable over Sabourin (6,208,964).

As per claim 1, "improving the recognition accuracy of a speech recognizer" is taught or suggested by Sabourin's adaptive speech recognition (abstract):

"deploying the speech recognizer" (his speech recognition of figure 2);

"collecting live input data" (his speech source 100);

“without supervision, applying a given adaptation algorithm to the received live input data” (his adaptation module 112 which improvement is done to automate partially or fully the training of a speech recognition dictionary in a speech recognition system, col. 1, lines 10-11); and

“redeploying the adapted speech recognizer” (suggested in that he teaches that adapting the recognition system is for the purpose of improving it for later use – read abstract).

It is noted that Sabourin does not explicitly teach the “redeploying”. However, he teaches that the improvement made through updating the system can be used later. Thus, it would have been obvious for a person having ordinary skill in the speech recognition, at the time the invention was made, that the updating process of Sabourin could be used to improve any speech recognition for later use because this is Sabourin’s purpose for improving recognition.

Claim 2: The prior art uses a computer 500, fig. 5.

Claim 3: Data may be contained in storage 500 which is not directly recognizable by a human, fig. 5.

Claim 4: Speech is not instantaneous and, therefore, must inherently be collected over time.

Claim 5, 9: The use of acoustically significant phonemes is taught in column 5.

Claim 6: The use of Hidden Markov Models is taught column 4.

Claim 7: The use of a language model is taught by his use of a lexicon 302.

Claim 8: Official Notice is taken that the use of bigram statistics is well known for use in context dependent HMM such as taught by Sabourin.

Claim 10: Transcription is taught by Sabourin (see title).

Claims 11-14 are rejected under similar arguments as applied above.

Claim 16 is presumed to be an attempt to claim a computer program that performs the previously claimed method (claim 1, for example).

REMARKS

11. The applicant's argument that Sabourin fails to teach applying a given adaptation algorithm to the received live input data as it is being recognized is not persuasive because he teaches automate partially or fully the training of a speech recognition dictionary in a speech recognition system, col. 1, lines 10-11. The term automate means to perform automatically without user intervention. Therefore, the automation of a training algorithm for speech recognition would teach one of ordinary skill in the art that instead of forcing the user to keep selecting a training process every time a correction is needed, the training would be done automatically.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any response to this action should be mailed to:

Box AF
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

TC2600 Fax Center
(703) 872-9314

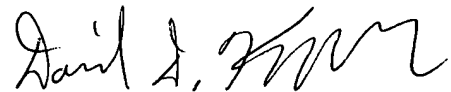
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached on (703) 305-4379.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service at (703) 306-0377.

The facsimile number for TC 2600 is (703) 872-9314.



David D. Knepper
Primary Examiner
Art Unit 2654

EXHIBIT C



[] Continuation
[] Divisional
[X] CPA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

Date: OCT. 14, 2002
Docket No. PHA 23,960
Prior Art Unit: 2654
Prior Ex. D.D. KNEPPER

Sir:

This is a request for filing a:

- [X] continued prosecution application ("CPA") under 37 CFR 1.53(d)
[] continuing application under 37 CFR 1.53(b)

of pending prior application Serial No. 09/311,333, filed on May 13, 1999 of Roger S. Zimmerman, Gary N. Tajchman, Ian S. Boardman, Helko W. Rahnel, and Thomas B. Schalk for In-the-Field Adaptation of a Large Vocabulary Automatic Speech Recognizer.

[] Enclosed are copies of ** sheets of specification and * drawing sheet (all of which constitutes the specification and drawing in this application) and the Declaration and Power of Attorney as filed in the parent application.

[X] Amend the specification by inserting before the first line as a centered heading: --Cross Reference To Related Applications--; and insert below that as a new paragraph -- This is a [X] continuation [] divisional of application Serial No. 09/311,333, filed May 13, 1999.--

[X] An appointment of associates is enclosed.

[] As last amended, the title has been changed to

[] As last amended, the name of applicant(s) has changed to

[] Before calculating the filing fee, cancel in this application original claims *****.

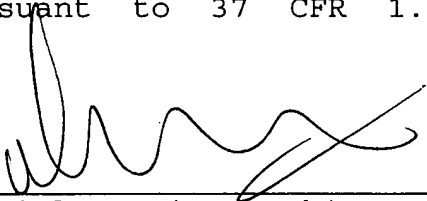
[X] The filing fee is calculated below:

CLAIMS AS FILED IN THIS APPLICATION				
For	Number Filed	Number Extra	Rate	Basic fee \$ 740.00
Total Claims	-20 =		X \$18 =	
Independ. Claims	- 3 =		X \$78 =	
Mult. Dependent Claims,		if any	(\$260)	=
Total Filing Fee-----				\$740.00

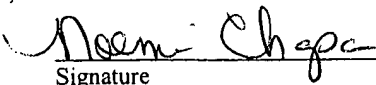
[X] Please charge the filing fee calculated above, plus any additional fees which may be required except for the Issue Fee, or credit any overpayment to Deposit Account No. 14-1270.

JR OCT 16 2002

- [] Priority of application Serial No. **, filed on *** in **, is claimed under 35 U.S.C. 119.
- [] The certified copy of the priority application was filed in prior application Serial No. ***.
- [X] This application is assigned to Voice Control Systems, Inc. by way of the assignment filed in application Serial No. 09/311,333.
- [X] Address all future communications to Corporate Patent Counsel, U.S. Philips Corporation, 580 White Plains Road, Tarrytown, New York 10591.
- [X] A preliminary amendment to this application was mailed on October 8, 2002.
- [X] Enter in this application the amendment under 37 C.F.R. 1.116 which was unentered in the prior application.
- [X] An Information Disclosure Statement is enclosed.
- [X] An Authorization Pursuant to 37 CFR 1.136(a)(3) is enclosed.



Daniel J. Piotrowski, Reg No. 42,079
Senior Patent Counsel
(914) 333-9624
U.S. Philips Corporation
580 White Plains Road
Tarrytown, New York 10591

CERTIFICATE OF EXPRESS MAILING	
Express Mail Mailing Label No.	<u>EL472130765</u>
Date of Deposit	<u>October 15, 2002</u>
I hereby certify that this paper and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.	
Noemi Chapa Typed Name	 Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

ROGER S. ZIMMERMAN ET

PHA 23,960

SERIAL NO. 09/311,333

GROUP ART UNIT: 2654

FILED: MAY 13, 1999

EXAMINER: D.D. KNEPPER

TITLE: IN-THE-FIELD ADAPTATION OF A LARGE VOCABULARY AUTOMATIC
SPEECH RECOGNIZER

Commissioner for Patents Washington, D.C. 20231

APPOINTMENT OF ASSOCIATES

Sir:

The undersigned Attorney of Record hereby revokes all prior appointments (if any) of Associate Attorney(s) or Agent(s) in the above-captioned case and appoints:

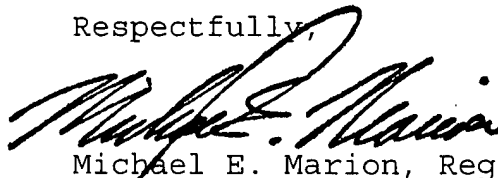
DANIEL J. PIOTROWSKI

(Registration No. 42,079)

c/o U.S. PHILIPS CORPORATION, Intellectual Property Department, 580 White Plains Road, Tarrytown, New York 10591, his Associate Attorney(s)/Agent(s) with all the usual powers to prosecute the above-identified application and any division or continuation thereof, to make alterations and amendments therein, and to transact all business in the Patent and Trademark Office connected therewith.

ALL CORRESPONDENCE CONCERNING THIS APPLICATION AND THE LETTERS PATENT WHEN GRANTED SHOULD BE ADDRESSED TO THE UNDERSIGNED ATTORNEY OF RECORD.

Respectfully,



Michael E. Marion, Reg. 32,266
Attorney of Record

Dated at Tarrytown, New York
this 14th day of October, 2002.

**INFORMATION
DISCLOSURE STATEMENT
TRANSMITTAL**

To Commissioner For Patents

Enclosed herewith is a Form PTO-1449, required copies of documents listed therein and a concise explanation of their relevance is described below or enclosed herewith per 37 CFR 1.97.

APR 14 2003

Application Number	09/311,333
Filing Date	May 13, 1999
First Named Inventor	Roger S. Zimmerman et al
Group Art Unit	2654
Examiner Name	D.D. Knepper
Attorney Docket Number	PHA 23,960

These documents may be relevant in that they have been (check one):


- ☒ cited in the parent application;
- ☐ cited in the specification of the above-referenced application;
- ☐ previously submitted or cited in U.S. patent application(s) which are relied on for an earlier effective filing date under 35 U.S.C. 120 (no copies required);
- ☐ cited as an "X" or "Y" document in a foreign Patent Office search report in a foreign counterpart application, a copy of which report is also enclosed; or
- ☐ otherwise a concise explanation of the relevance of each document, as understood by the individual designated in §1.56(c) most knowledgeable about the contents, is append hereto.

if the date of this IDS may be after the date of a final Office Action - per §1.97(e) check one:

- ☐ I hereby certify that these documents were first cited in any communication with a foreign Patent Office for a counterpart foreign application not more than three (3) months ago; or
- ☐ I hereby certify that not one of these documents was cited in any communication with a foreign Patent Office in a counterpart foreign application, nor was any known to any individual designated in §1.56(c) more than three (3) months ago.

Please charge any required fee under § 1.17(p) or any other required fee (except the issue fee) to Account No. 14-1270.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print Type)	DANIEL A. PIOTROWSKI	Registration No. (Attorney/Agent)	42,079
Signature		Date	10/15/00



Form PTO-1449 U.S. DEPARTMENT OF COMMERCE (REV. 7-80) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	Atty. Docket No.	Serial No.
	PHA 23,960	09/311,333
	Applicant Roger S. Zimmermna et al	
	Filing Date	Group
	May 13, 1999	2654

U.S. PATENT DOCUMENTS

Ex. Int.		Document Number	Date	Name	Class	Sub-class	Filing Date If Approp.
	AA	6 2 0 8 9 6 4	3/2001	SABOURIN	704	244	
	AB	5 1 9 9 0 7 7	3/1993	WILCOX ET AL	704	256	
	AC	5 8 3 5 8 9 0	11/1998	MATSUI ET AL	704	255	
	AD						
	AE						
	AF						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-class	Trans.
							Yes No
	AG						
	AH						
	AI						
	AJ						
	AK						

OTHER (Including Author, Title, Date, Pertinent Pages, Etc.)

AL	Miyazawa et al., "Unsupervised Speaker Adaptation Using All-Phoneme Ergodic Hidden Markov Network", IEICE Transactions on Information and Systems, JP, Institute of Electronics Information and Comm. Eng. Tokyo, vol. E78-D, No. 8, August 1995, pp. 1044-1050.
AM	
AN	

Examiner

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M 609; Draw line through citation if not in conformance and not considere
Include a copy of this form with next communication to applicant.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

ROGER S. ZIMMERMAN ET AL

SERIAL NO. 09/311,333

FILED: MAY 13, 1999

Atty. Docket

PHA 23,960

GROUP ART UNIT: 2654

EXAMINER: D.D. KNEPPER

TITLE: IN-THE-FIELD ADAPTATION OF A LARGE VOCABULARY AUTOMATIC
SPEECH RECOGNIZER

Commissioner for Patents
Washington, D.C. 20231

AUTHORIZATION PURSUANT TO 37 CFR 91.136(a)(3)
AND TO CHARGE DEPOSIT ACCOUNT

Sir:

The Commissioner is hereby requested and authorized to treat any concurrent or future reply in this application requiring a petition for extension of time for its timely submission, as incorporating a petition for extension of time for the appropriate length of time.

Please charge any additional fees which may now or in the future be required in this application, including extension of time fees, but excluding the issue fee unless explicitly requested to do so, and credit any overpayment, to Deposit Account No. 14-1270.

Respectfully submitted,

By

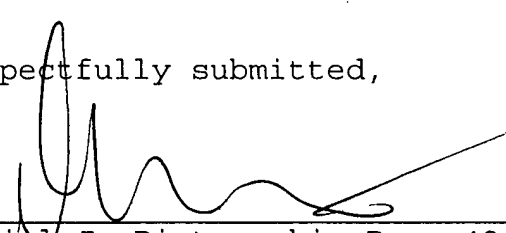

Daniel J. Piotrowski, Reg. 42,079
Senior Corporate Patent Counsel
(914) 333-9624

EXHIBIT D



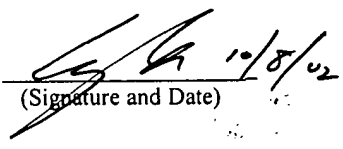
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: ROGER S. ZIMMERMAN ET AL
SERIAL NO.: 09/311,333 EXAMINER: D.D. KNEPPER
FILED: MAY 13, 1999 ART UNIT: 2654
FOR: IN-THE-FIELD ADAPTATION OF A LARGE VOCABULARY
AUTOMATIC SPEECH RECOGNIZER

Certificate of Mailing Under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to ASSISTANT COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231 on October 8, 2002.

Steve Cha, Reg. No. 44,069
(Name of Registered Rep.)


(Signature and Date) 10/8/02

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

Dear Sir:

Prior to calculation of the filing fee and examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please add new claim 17 and amend the following claims:

1. A method of improving the recognition accuracy of a speech recognizer, comprising the steps of:

NOV

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deploying the speech recognizer in an environment to receive live input data;

receiving live input data;

without supervision, selecting at least one adaptation algorithm from a plurality of adaptation algorithms, and applying the selected adaptation algorithm to the received live input data as it is being recognized to improve at least one application-specific feature for the recognition accuracy of the speech recognizer; and

redeploying the adapted speech recognizer in the target environment.

14. A method of improving the recognition accuracy of a speech recognizer deployed in an environment to receive live input data, comprising the steps of:

receiving live input data; and

without supervision, selecting at least one adaptation algorithm from a plurality of adaptation algorithms, and applying a given speaker-independent adaptation algorithm to the received live input data as it is being recognized to improve the recognition accuracy of the speech recognizer.

16. A computer-readable memory medium, said medium including code for improving the recognition accuracy of a speech recognizer in an environment to receive live input data, the code comprising:

receiving code, to enable live input data reception;

selecting code, to select at least one adaptation algorithm from a plurality of adaptation algorithms,

applying code, to apply the selected adaptation algorithm to received live input data as it is being recognized and thereby to improve the recognition accuracy of the speech recognizer; and

updating code, to apply the adapted speech recognizer in the environment.

17 The method of claim 1, wherein the at least one application-specific feature is selected from the group consisting of channel characteristics, dialects, pronunciation idiosyncrasies and speaking style.

REMARKS

This amendment is submitted to place the application in better form and more particularly point out the invention. Entry is respectfully solicited.

Applicants respectfully submit that the pending claims, as amended, are patentable for at least the following reasons.

It is respectfully submitted that the prior art of record, either along or in combination, does not anticipate or make obvious any of the instant claims, as amended, at least because they do not teach, show or describe that without supervision, selecting at least one adaptation algorithm from a plurality of adaptation algorithms, and applying the selected adaptation algorithm to the received live input data as it is being recognized to improve at least one application-specific feature for the recognition accuracy of the speech recognizer, as recited in amended Claim 1. As further described the instant specification at page 11, line 11 through page 12, line 3.

In particular, although the Sabourin Reference (U.S. Patent No. 6,208,964, hereinafter "Sabourin"), shows an adaptation module 12, it does not select from different adaptation algorithms to learn or improve application-specific features, as claimed in claim 1. Sabourin teaches only a transcription adaptation method.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. These claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.


For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

Dan Piotrowski
Registration No. 42,079

Date:

10/8/02


By: Steve Cha
Attorney for Applicant
Registration No. 44,069

AMENDMENT

U.S. Appln. No. 09/311,333

PHD A23-960

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580 White Plains Road
Tarrytown, NY 10591

Phone: (914) 333-9624
Fax: (914) 332-0615



AMENDMENT

U.S. Appln. No. 09/311,333

PHD A23-960

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please add new claim 17 and amend the following claims:

1. (Amended) A method of improving the recognition accuracy of a speech recognizer, comprising the steps of:

deploying the speech recognizer in an environment to receive live input data;

receiving live input data;

without supervision, selecting at least one adaptation algorithm from a plurality of adaptation algorithms, and applying a given the selected adaptation algorithm to the received live input data as it is being recognized and a confidence measure to a portion of the live input data, to improve at least one application-specific feature for the recognition accuracy of the speech recognizer; and

redeploying the adapted speech recognizer in the target environment.

14. (Amended) A method of improving the recognition accuracy of a speech recognizer deployed in an environment to receive live input data, comprising the steps of:

receiving live input data; and

without supervision, selecting at least one adaptation algorithm from a plurality of adaptation algorithms, and applying a given speaker-independent adaptation algorithm to the received live input data as it is being recognized and a confidence measure to a portion of the live

~~input data,~~ to improve the recognition accuracy of the speech recognizer.

16. (Amended) A computer-readable memory medium, said medium including code for improving the recognition accuracy of a speech recognizer in an environment to receive live input data, the code comprising:

receiving code, to enable live input data reception;

selecting code, to select at least one adaptation algorithm from a plurality of adaptation algorithms,

applying code, to apply ~~a given~~the selected adaptation algorithm to received live input data as it is being recognized ~~and a confidence measure to a portion of the live input data~~ and thereby to improve the recognition accuracy of the speech recognizer; and

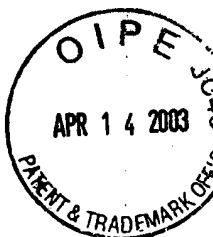
updating code, to apply the adapted speech recognizer in the environment.

17 (New) The method of claim 1, wherein the at least one application-specific feature is selected from the group consisting of channel characteristics, dialects, pronunciation idiosyncrasies and speaking style.

EXHIBIT E

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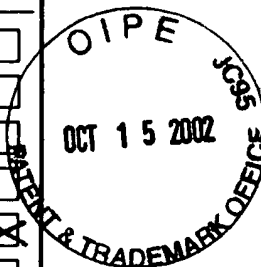
DOCKET NO. A 23,960 DIV. PSK SER. NO. 09/311,333



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ACKNOWLEDGE RECEIPT OF NOTED DOCUMENTS

IDS/PTO 1449, Auth. to Charge Dep. Act

Application CPA ☒ Amendment ☐
_____ Pages of Issue Fee ☐
spec., claims & abs. Notice of Appeal ☐
Con. Doc. ☐ Extension ☐
Drawings Inf. ☐ Mailing Cert. ☒
No. Sh. _____ For. ☐ Assignment ☐
Power of Att. ☒ Decl. - signed ☐
MLG. Date Oct. 15, 2002 - unsigned ☐



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